MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2018/2019 SESSION

DBM5624 – PRINCIPLES OF FINANCE

(For Diploma Students Only)

30 MAY 2019
2.30 PM – 4.30 PM
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **9** pages with 2 sections.
2. For Section A, shade your answers on the OMR form provided.
3. For Section B, write your answers in the answer booklet provided.
4. The formulae are given in the appendices.
5. Answer **ALL** questions.

SECTION A: MULTIPLE CHOICE QUESTIONS

Instruction: Shade your answers on the OMR form provided.

1. The type of long term financing used by both corporations and government entities is called as _____.

   A. bonds
   B. preferred stocks
   C. retained earnings
   D. common stocks

2. If a bond pays a RM1,000 plus interest at maturity, the RM1,000 is called as _____.

   A. stated value
   B. market value
   C. par-value
   D. long-term value

3. Which one of the following terms refers to the dates when the principal amount of a bond is repaid?

   A. Coupon date.
   B. Issue date
   C. Maturity date.
   D. Face date.

4. A written agreement that contains specific details related to a bond issue is called as the bond _____.

   A. indenture
   B. document
   C. statement
   D. issuance

5. A bearer form bond is defined as a bond that _____.

   A. pays coupon payments directly to the registered owner of the bond
   B. pays coupon payments to whoever holds the bond at maturity
   C. secured by real property
   D. secured by financial securities

6. Which one of the following terms indicate a bond that is unsecure?

   A. Call provision.
   B. Registered bond.
   C. Sinking fund.
   D. Debenture.

Continued...

7. A premium bond is the bond by which the _____.

A. market price exceeds the par value
B. face value exceeds the market price
C. interest rate exceeds the coupon rate
D. coupon rate exceeds the interest rate

8. A bond dealer sells at the _____ price and buys at the _____ price.

A. clean; dirty
B. asked; bid
C. bid; asked
D. dirty; clean

9. Bonds _____ are often put in place by lenders to protect themselves from borrowers defaulting on their obligations.

A. premium
B. provision
C. covenant
D. maturity

Questions 10, 11 and 12 are based on below statement.

Thor Corporation just issued a 20 years bond with 6.5 percent coupon bond. The face value of the bond is RM1,000 and the bond makes annual coupon payments. The required return on the bond is 10 percent.

10. Calculate the bond price.

A. RM520.60
B. RM702.02
C. RM968.10
D. RM998.80

11. The answer in question 10 indicates that the bond is selling at _____.

A. par
B. discount
C. premium
D. default

12. Calculate the current yield of the bond.

A. 9.26 percent.
B. 12.49 percent.
C. 6.51 percent.
D. 6.71 percent.

Continued...

13. The term structure of interest rates is affected by which of the following?

I. Interest rate risk premium.
II. Real rate of interest.
III. Default risk premium.
IV. Inflation premium.

A. I, II and III only.
B. II, III and IV only.
C. I, II and IV only.
D. I, III and IV only.

14. If the nominal rate of return is 5 percent and the real rate of return is 2.5 percent, what is the inflation rate?

A. 2.4 percent.
B. 2.5 percent.
C. 10.7 percent.
D. 10.5 percent.

15. A bond that sells at a deep discount and pays no interest payments is called as _____ bond.

A. income
B. convertible
C. zero coupon
D. callable

16. Which one of the following is **CORRECT** pertaining to preferred stocks?

A. Dividends will be paid before common stocks.
B. A liability of the firm.
C. Carry voting rights.
D. Least preferred dividends are cumulative.

17. Dividends are **BEST** defined as _____.

A. Distributions of stock to current shareholders.
B. Cash payments to shareholders.
C. Cash or stock payments to shareholders.
D. Cash or stock payments to bondholders.

18. Newly issued securities are sold to investors in which one of the following markets?

A. Secondary market.
B. Multiple market.
C. Old market.
D. Primary market.

Continued...

19. A broker is an agent who _____.

A. brings buyers and sellers together
B. maintains an investor
C. offers new securities
D. is ready to buy and sell at anytime

20. The price of a stock at year 5 can be expressed as _____.

A. $D_6/(R-g)$
B. $D_5/(R-g)$
C. $D_0/(R+g)$
D. $D_0(R-g)$

21. Suppose a stock is expected to pay a RM0.50 dividends and the required rate of return is 8 percent with semi-annual compounding. Find the price of the stock.

A. RM3.13
B. RM6.75
C. RM12.50
D. RM13.50

22. Lucifer Corporation just paid a dividend of RM0.50. It is expected to increase its dividend by 1.3 percent per year. If the market requires a return of 8 percent of this risk, how much should the stock be selling for?

A. RM7.46
B. RM7.56
C. RM11.30
D. RM11.62

23. Mammoth Company is expected to pay a RM2.50 dividends in one year. If the dividend is expected to grow at 3.5 percent per year and the required return is 22 percent, what is the price of the stock?

A. RM13.51
B. RM13.99
C. RM19.23
D. RM25.96

Questions 24 and 25 are based on below situation.

A firm's stock is selling for RM18. The company has just paid a RM2 dividends that are expected to grow at 2.5 percent per year.

24. What is the required rate of return of the stock?

A. 1.89 percent.
B. 3.89 percent.
C. 11.39 percent.
D. 13.89 percent.

Continued...

25. What is the capital gains yield of the stock?

A. 0.2 percent.
B. RM2.
C. 2.5 percent.
D. RM18.

26. The dividend growth model can be used to value the stock of firms that pay below type of dividends **EXCEPT** _____.

A. constant annual dividend
B. annual dividend with a constant increasing rate of growth
C. annual dividend with a constant decreasing rate of growth
D. zero dividend

27. Iskandar owns 200 shares of Island Persona company's stock. Which one of the following terms is used to refer to the return that Iskandar requires on his investment in Island Persona?

A. Cost of equity.
B. Cost of debt.
C. Weighted average cost.
D. Dividends average cost.

28. Which of the following is **INCORRECT** pertaining to Security Market Line (SML)?

A. SML is applicable to all companies as long as beta is available.
B. SML estimates the expected market risk premium.
C. SML is only applicable to companies currently paying dividends.
D. SML explicitly adjusts the risk of the investment.

29. Ms. Sarimah is trying to decide the type of cost of capital she should assign to her company's project. Which one of the following should be her primary consideration in making decision?

A. Future debt of the project.
B. Lengths of the project's life.
C. Risk level of the project.
D. Objectives of the project.

30. Seroja company has paid increasing dividends of RM1.12, RM1.18 and RM1.20 a share over the past three years, respectively. By using the historical average method, find the average of dividends.

A. 2.35 percent.
B. 2.40 percent.
C. 3.00 percent.
D. 3.52 percent.

Continued...

31. The Green Witch company has a systematic risk of asset of 1.5, market risk premium of 6 percent and a current risk free rate of 3 percent. By using the Security Market Line (SML)/Capital Asset Pricing Model (CAPM) method, find the firm's cost of equity.

A. 10.5 percent.
B. 12.0 percent.
C. 13.5 percent.
D. 14.0 percent.

32. Yogurt Excel company will pay its first annual dividend of RM1.20 a share with a current stock price of RM8.50 per share. The firm plans to increase the dividend by 3.5 percent per year. By using the Dividend Growth Model (DGM) method, find the firm's cost of equity.

A. 7.1 percent.
B. 12.2 percent.
C. 14.3 percent.
D. 17.6 percent.

33. Birds of Feather company has yield to maturity of 12 percent. Given corporate tax rate of 35 percent, find the firm's after-tax cost of debt.

A. 3.0 percent.
B. 4.2 percent.
C. 7.8 percent.
D. 9.6 percent.

34. The RM5 dividend of preferred stock for Home Town Brewers is selling for RM35 a share. What is the firm's cost of preferred stock if the corporate tax rate is 34 percent?

A. 12.35 percent.
B. 14.29 percent.
C. 16.32 percent.
D. 18.29 percent.

35. On which one of the following dates will the shareholders' checks are mailed?

A. Payment date.
B. Ex-dividend date.
C. Date of record.
D. Declaration date.

36. The ex-dividend date for Bravo Company's stock is on Wednesday, June 26. Which one of the following dates is the record date?

A. Monday, June 24.
B. Thursday, July 26.
C. Friday, June 28.
D. Friday, July 30.

Continued...

37. Which one of the following is an example of a liquidating cash dividend?

A. Marketing Excel Company recently sold its printing machines and is distributing the sales proceed to its shareholders.
B. Lemon Gram company is planning to increase its quarterly dividend by 3.5 percent.
C. The Dried River company is preparing to pay its first annual dividend of RM0.50 per share.
D. Low Technology Company had a profitable year and has decided to do a one-time extra RM7 per share cash dividend.

38. The following factors favors a low-dividend payout **EXCEPT** _____.

A. individuals in upper income tax brackets
B. flotation costs
C. dividend restrictions
D. uncertainty resolution

39. Which one of the following is a noncash payment made by a firm to its shareholders?

A. Cash distribution.
B. Regular dividend.
C. Stock dividend.
D. Reverse stock.

40. If clienteles exist, which one of the following statements is **CORRECT**?

A. All dividends become irrelevant.
B. Dividend policy is irrelevant as long as each clientele group is currently satisfied.
C. All firms will adopt a high-dividend-payout policy.
D. All firms should adopt a low-dividend-payout policy.

[TOTAL 40 MARKS]

Continued...

SECTION B: STRUCTURED QUESTIONS (60 marks)

Instruction: Write all your answers in the answer booklet provided.

QUESTION 1

Fantasy Berhad company is considering two projects that have 12 percent as the required rate of return. The cash flows for both projects are as follow. Calculate:

Year	Charlie Project (RM)	Delta Project (RM)
0	-80,000	-80,000
1	30,000	35,000
2	25,000	20,000
3	20,000	25,000
4	20,000	25,000
5	23,000	20,000

(a) i. Net present value (NPV) for both projects. (18 marks)

ii. Based on your answer in (a) i., if both projects are mutually exclusive projects, which project should the company accept? Why? (1 mark)

(b) i. Profitability Index (PI). (4 marks)

ii. Based on your answer in (b) i., if both projects are independent projects, which project should the company accept? Why? (1 mark)

(c) If both Charlie and Delta projects are mutually exclusive projects, which project should the company accept? Why? (1.5 marks)

[TOTAL 25.5 MARKS]

Continued...

QUESTION 2

A list of financial information of Medal Win Company is listed below. Construct the company's Cash Budget which consists of:

Expected sales by quarter	Quarter 1 - RM50,000 Quarter 2 - RM60,000 Quarter 3 - RM55,000 Quarter 4 - RM45,000
Beginning accounts receivable	RM40,000
Collections	Beginning receivables + ¾ of sales
Accounts payable	75% of sales
Salaries, taxes and other expenses	20% of sales
Interest and dividends	RM5,000 per quarter
Major expansion planned for Quarter 3	RM25,000
Beginning cash balance	RM8,000 with minimum cash balance of RM500

(a) Cash Collection. (8 marks)

(b) Cash Disbursement. (8.5 marks)

(c) Net Cash Flow. (6 marks)

[TOTAL 22.5 MARKS]

QUESTION 3

(a) Wolverine Incorporation has an inventory with a carrying cost of RM2.50 per unit. The fixed order cost of the inventory is RM45 per order and the company sells 180,000 units of inventory per year. Calculate the economic order quantity (EOQ). (2.5 marks)

(b) Roy's Welding Shop purchased RM6,300 worth of goods. The terms of the sale were 1/8, net 20. What are the discount value and effective annual rate of interest? (5.5 marks)

(c) List at least **FOUR (4)** Cs of credit in order to determine the creditworthiness of a company. (4 marks)

[TOTAL 12 MARKS]

End of Page.

Appendices

I. Finding the value of a bond

Bond value = $C \times [1 - 1/(1 + r)^t]/r + F/(1 + r)^t$

where

C = Coupon paid each period
r = Rate per period
t = Number of periods
F = Bond's face value

II. Finding the yield on a bond

Given a bond value, coupon, time to maturity, and face value, it is possible to find the implicit discount rate, or yield to maturity, by trial and error only. To do this, try different discount rates in the formula above until the calculated bond value equals the given bond value. Remember that increasing the rate *decreases* the bond value.

I. The general case

In general, the price today of a share of stock, P_0, is the present value of all of its future dividends, D_1, D_2, D_3, . . . :

$$P_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \frac{D_3}{(1+R)^3} + \cdots$$

where R is the required return.

II. Constant growth case

If the dividend is constant and equal to D, then the price can be written as:

$$P_0 = \frac{D}{R}$$

If the dividend grows at a steady rate, g, then the price can be written as:

$$P_0 = \frac{D_1}{R - g}$$

This result is called the *dividend growth model*.

III. Nonconstant Growth

If the dividend grows steadily after t periods, then the price can be written as:

$$P_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \cdots + \frac{D_t}{(1+R)^t} + \frac{P_t}{(1+R)^t}$$

where

$$P_t = \frac{D_t \times (1+g)}{(R-g)}$$

IV. Valuation Using Multiples

For stocks that don't pay dividends (or have erratic dividend growth rates), we can value them using the PE ratio and/or the price-sales ratio:

P_t = Benchmark PE ratio × EPS_t
P_t = Benchmark price-sales ratio × Sales per share$_t$

V. The required return, R, can be written as the sum of two things:

$$R = D_1/P_0 + g$$

where D_1/P_0 is the *dividend yield* and g is the *capital gains yield* (which is the same thing as the growth rate in dividends for the steady growth case).

I. **The cost of equity, R_E**
   A. Dividend growth model approach (from Chapter 7):

$$R_E = D_1/P_0 + g$$

   where D_1 is the expected dividend in one period, g is the dividend growth rate, and P_0 is the current stock price.
   B. SML approach (from Chapter 11):

$$R_E = R_f + \beta_E \times (R_M - R_f)$$

   where R_f is the risk-free rate, R_M is the expected return on the overall market, and β_E is the systematic risk of the equity.

II. **The cost of debt, R_D**
   A. For a firm with publicly held debt, the cost of debt can be measured as the yield to maturity on the outstanding debt. The coupon rate is irrelevant. Yield to maturity is covered in Chapter 6.
   B. If the firm has no publicly traded debt, then the cost of debt can be measured as the yield to maturity on similarly rated bonds (bond ratings are discussed in Chapter 6).

III. **The weighted average cost of capital, WACC**
   A. The firm s WACC is the overall required return on the firm as a whole. It is the appropriate discount rate to use for cash flows similar in risk to the overall firm.
   B. The WACC is calculated as:

$$\text{WACC} = (E/V) \times R_E + (D/V) \times R_D \times (1 - T_C)$$

   where T_C is the corporate tax rate, E is the *market* value of the firm s equity, D is the *market* value of the firm s debt, and $V = E + D$. Note that E/V is the percentage of the firm s financing (in market value terms) that is equity, and D/V is the percentage that is debt.

I. $\text{Operating cycle} = \text{Inventory period} + \text{Accounts receivable period}$

II. $\text{Cash cycle} = \text{Operating cycle} - \left[\dfrac{365\text{ days}}{\left(\dfrac{\text{COGS}}{\text{Average accounts payable}}\right)}\right]$

III. $\text{Inventory period} = \dfrac{365\text{ days}}{\left[\dfrac{\text{COGS}}{\text{Average inventory}}\right]}$

IV. $\text{Accounts receivables period} = \dfrac{365\text{ days}}{\left[\dfrac{\text{Credit sales}}{\text{Average accounts receivables}}\right]}$

V. $\text{Accounts receivable turnover} = \dfrac{\text{Credit sales}}{\text{Average accounts receivable}}$

VI. $\text{Accounts payable period} = \dfrac{365\text{ days}}{\left[\dfrac{\text{COGS}}{\text{Average accounts payable}}\right]}$